

STUDENT WARNING: This course syllabus is from a previous semester archive and serves only as a preparatory reference. Please use this syllabus as a reference only until the professor opens the classroom and you have access to the updated course syllabus. Please do NOT purchase any books or start any work based on this syllabus; this syllabus may NOT be the one that your individual instructor uses for a course that has not yet started. If you need to verify course textbooks, please refer to the online course description through your student portal. This syllabus is proprietary material of APUS.

SPHS525

Course Summary

Course : SPHS525 **Title :** SPHS525, Exercise for Chronic Disease: Musculoskeletal Concerns.

Length of Course : 8 **Faculty :**

Prerequisites : SPHS506 **Credit Hours :** 3

Description

Course Description:

SPHS525- Exercise for Chronic Disease: Musculoskeletal Concerns (prereq: SPHS506)

This course will explore the use of exercise as a preventive and restorative modality for individuals with or at risk for chronic musculoskeletal concerns. This course will provide a deeper understanding of how to apply exercise physiology, biomechanics, and exercise prescription principles for those in need of remedial exercise programming, and will prepare the learner to design and implement these fitness programs. Prerequisite: SPHS506

Course Scope:

This course in Essentials of Humans Performance and Exercise Science will provide the student with the knowledge they will need to identify various chronic musculoskeletal diseases using evidence-based exercise testing procedures. Students will utilize information from this course to prescribe appropriate exercises to restore or maintain function in those with various musculoskeletal disease. Students learn to identify premorbid/comorbid medical and musculoskeletal conditions which prohibit or limit client participation in an exercise program.

Objectives

After successfully completing this course, students will fulfill the following **Learning Objectives** (L.O.):

Each student will:

1. Describe the interprofessional team necessary to address chronic musculoskeletal disease, who leads this team and their own scope of practice.
2. Prepare health appraisals including screening and risk stratification of apparently healthy individuals, prior to testing or exercise prescription.
3. Identify key screening results that require follow up by other medical providers as well as those that would fall within the scope of a Clinical Exercise Specialist
4. Design an exercise prescription for an individual with chronic musculoskeletal disease or condition.
5. Synthesize client and care team feedback to modify previously designed exercise prescription plan to accommodate for changes in client status.

Outline

Week 1: Welcome to the course! Lets define scope of practice and the state fitness in America!

Topic(s)

Scope of practice for the Clinical Exercise Specialist

Trends in physical activity and fitness in America

Impact these trends have on the population

Preliminary Health Screening and Risk Classification

Learning Objective(s)

1,2,3

Reading(s)

[Chapter 1: Chronic disease and the benefits of exercise](#)

[Chapter 2: Scope of practice and health risk](#)

[Chapter 3: Rapport and psychology](#)

[Appendix A: Physical Activity Risk Stratification form](#)

[Appendix B: Medical Clearance form](#)

[Appendix D: Sample SOAP Notes form](#)

Assignment(s)

1. Introduction Forum
2. Discussion 1
3. Lab 1

Week 2: The Core is the key to balance, gait and functional movement

Topic(s)

Without the core this is no balance or gait.

Creating movement at distal joints to maintain core/trunk and head stability: Adaptations to maintain stability at the foot, ankle and knee.

3,4,5

Reading(s)

Chapter 16: Core, Balance and Gait

Spiral Line Video: <https://youtu.be/qNdrim66KN0>

Front Functional Line <https://youtu.be/TNzg80OF4IU>

Posterior Oblique Line <https://youtu.be/vveEanurYys>

Assignment(s)

1. Forum 2
2. Writing Assignment

Week 3: The shoulder and upper arm

Topic(s)

Shoulder complex and upper arm structure and function as it relates to common shoulder and upper arm pathologies, including scapular dyskinesis and the role of the core/slings in its development.

Learning Objective(s)

L01: Students will broaden their understanding of the structure and function of the shoulder complex and upper arm.

L02: Students will identify common pathokinesiology of the shoulder complex and upper arm that lead to chronic musculoskeletal injuries.

L03: Students will identify appropriate tests to assess shoulder complex and upper arm function

L04: Students will prescribe an appropriate exercise regime to address the findings of their tests and measures.

3.4.5

Reading(s)

Chapter 17: Common Shoulder dysfunctions

Chapter 18: Common dysfunctions of the upper arm

Upper cross syndrome https://www.physio-pedia.com/Upper-Crossed_Syndrome

Assignment(s)

1. Forum 3
2. Lab 2

Week 4: The hip and knee

Topic(s)

Hip and Knee

Topic(s)

Hip and knee structure and function as it relates to common pathologies in the region with special attention paid to the early identification of common musculotendinous pathologies associated with chronic pain in the region.

Learning Objective(s)

L01: Students will broaden their understanding of the structure and function of the knee and hip.

L02: Students will identify common pathokinesiology occurring at the hip and knee that lead to chronic musculotendinous injuries.

L03: Students will identify signs and symptoms of osteoarthritic changes in the hip and knee and how to lesson their progression.

L04: Students will prescribe an appropriate exercise regime to address the findings of their tests and measures pertinent to the region.

3,4,5

Reading(s)

[Chapter 19: Common Hip Injuries](#)

[Chapter 20: Common Knee Injuries](#)

<https://boneandjointburden.org/fourth-edition/iiib70/joint-pain-and-joint-replacement>

Assignment(s)

1. Forum 4
2. Lab 3

Week 5: Lower leg, foot and ankle

Topic(s)

Lower Leg, foot and ankle structure and function as it relates to common pathologies in the region with special attention paid to the early identification of common musculotendinous pathologies associated with chronic pain in the region.

Learning Objective(s)

L01: Students will broaden their understanding of the structure and function of the lower leg, foot and ankle.

L02: Students will identify signs and symptoms of common musculoskeletal injuries in the lower leg, foot and ankle

L04: Students will prescribe an appropriate exercise regime to address the findings of their tests and measures pertinent to this region.

3,4,5

Reading(s)

[Chapter 21: Common dysfunctions of the lower extremities](#)

Assignment(s)

1. Forum 5
2. Lab 4

Week 6: Low back pain

Topic(s)

Low back pain its prevalence and cost to society.

Learning Objective(s)

L01: Students will broaden their understanding of the structure and function of the lower back.

L02: Students will identify signs and symptoms of common injuries involving the lower back.

L04: Students will prescribe an appropriate exercise regime to address the findings of their tests and measures pertinent to this region

3,4,5

Reading(s)

Chapter 22: Low back pain

<https://boneandjointburden.org/>

Assignment(s)

1. Forum 6
2. Lab 5

Week 7: Osteo and Rheumatoid Arthritis for the CXS

Topic(s)

The causes of Osteoarthritis and Rheumatoid Arthritis will be discussed as it pertains to exercise and the Clinical Exercise Specialist.

Learning Objective(s)

L01: Students will describe the pathomechanics and or trauma that leads to the development of Osteoarthritis

L02: Students will be able to articulate the causes of rheumatoid arthritis and its impact on the musculoskeletal system.

L03: Students will prescribe a exercise routine which will preserve articular strength and mobility while avoiding stressing damaged articular surfaces in a client with osteoarthritis.

L04: Students will prescribe an exercise routine which maintains joint stability in a client with Rheumatoid Arthritis.

3,4,5

Reading(s)

[Chapter 23: Arthritis](#)

<https://boneandjointburden.org/fourth-edition/iiib10/osteoarthritis>

<https://boneandjointburden.org/fourth-edition/iiia0/arthritis-and-other-rheumatic-conditions>

USBJI experts in arthritis videos: <https://www.usbj.org/programs/public-education-programs/arthritis-experts> 3 videos: Rheumatoid Arthritis video AND Osteoarthritis Videos plus intro video

Assignment(s)

1. Final Paper
2. Forum 7

Week 8: Osteopenia and osteoporosis

Topic(s)

The factors which lead to Osteopenia and its progression to Osteoporosis will be discussed as well as the impact of weight bearing exercise on its progression.

Learning Objective(s)

L01: Students will describe the causes of osteopenia and osteoporosis.

L02: Students will describe the benefits of weight bearing exercise as it pertains to reducing the risk of osteopenia and osteoporosis in their clients.

3,4,5

Reading(s)

Chapter 24 Osteoporosis

USBJI Fit to a T videos <https://www.usbj.org/programs/public-education-programs/fit-to-t>

Assignment(s)

1) Forum 8

Evaluation

Grading:

Name	Grade %
Discussions	25.00 %
Week 1: Introductions and Medical History Questionnaire	3.13 %
Week 2: Professional Organizations and Fighting Obesity	3.13 %
Week 3: Cardiovascular Testing and VO2 Max	3.13 %
Week 4: Muscular Fitness Testing and Muscular Endurance	3.13 %
Week 5: Body Composition	3.13 %
Week 6: Flexibility	3.13 %
Week 7: Balance Testing Assessment and Design	3.13 %
Week 8: Osteoporosis	3.13 %
Labs	35.00 %
Week 1- Lab 1	7 %
Week 3- Lab 2	7 %
Week 4- Lab 3	7 %
Week 5- Lab 4	7 %
Week 6- Lab 5	7 %
Final Paper	25.00 %
Week 7- Final project	25.00 %
Writing Assignment: Chronic Disease paper	15.00 %
Week 2- Writing Assignment	15.00 %

Materials

Book Title: Clinical Exercise Specialist Manual: A Fitness Professional's Guide to Training People with Chronic Disease.

Author: MIKESKA, JD

Publication Info: Niche Pressworks; Indianapolis, IN. 2020

ISBN: ERESERVE NOTE

Required Readings:

See Course Outline

Additional Resources:

In the Course Materials folder there are additional course articles, and up to date APA handouts.

Websites- *you can add to this, but do not change what is already here

In addition to the required course texts the following public domain Websites are useful. Please abide by the university's academic honesty policy when using Internet sources as well. Note web site addresses are subject to change.

Site Name

Website URL/Address

The OWL at Purdue

<http://owl.english.purdue.edu/>

APA Style Homepage

<http://www.apastyle.org/index.aspx>

Supplemental videos

<https://www.youtube.com/watch?v=qHEm3o8FEiE&list=PLUs26kF4ZZy8ozPOhTut>

[dB0yRMkV4mz7b&index=1](https://www.youtube.com/watch?v=qHEm3o8FEiE&list=PLUs26kF4ZZy8ozPOhTut)

Burden of Musculoskeletal Disease in the US

<https://www.boneandjointburden.org/>

<https://boneandjointburden.org/fourth-edition/iiib70/joint-pain-and-joint-replacement>

https://www.physio-pedia.com/Upper-Crossed_Syndrome

Spiral Line Video: <https://youtu.be/qNdrim66KN0>

Front Functional Line <https://youtu.be/TNzg80OF4IU>

Posterior Oblique Line <https://youtu.be/vveEanurYys>

Course Guidelines

Academic Honesty & Personal Integrity

The University System supports and promotes academic honesty and personal integrity. Any form of academic dishonesty has no place in higher education. The University System does not tolerate dishonest efforts by its students. Students who are guilty of academic dishonesty can expect to be penalized. Any student who knowingly assists another student in dishonest behavior is equally responsible. An additional violation of the standards of academic honesty within a course may result in dismissal from the University System. [Click here for the full APUS policy.](#)

In addition to the [university's plagiarism policy](#), students who are found to have submitted materials plagiarized from any online source, such as Course Hero, etc., will be reported to both the Plagiarism Office and the Student Conduct Office with the possibility of [failing the course](#) and/or expulsion from APUS. Use of said materials is academic dishonesty and will not be tolerated.

Using Turn-It-In for Discussions

*Some instructors may require students to submit their initial **Discussion** posts to Turnitin via the "Assignments" tool in our Brightspace classroom--please check the Discussion Guidelines (Course Overview & Introduction Content area) and/or an Announcement from your faculty to determine if this step is required for this course.*

If this is a requirement in your class, before posting your initial Discussion, you must submit it in the assignment area in a Word file, so its originality can be checked by turnitin.com. Your similarity score will appear in the same place you submit your file. It can take up to 24 hours for a score to return, but usually, it is less than 30 minutes. Before you post your Discussion, make sure your similarity score is less than 15%. If it is greater than 15%, edit/rewrite your discussion, submit it again in the assignment area and check the %. Repeat this process until your similarity score is less 15%. Then post your Initial Discussion for the week.

Writing Expectations

Students please review forum and assignment rubrics prior to completing each course requirement. As you work with student athletes, other athletic/fitness related personnel, clinical and other situations, you will frequently encounter challenging learning and behavioral situations. The solutions you find to these challenges will often determine success at a personal and program level. Your experiences have led you to certain beliefs; however, these beliefs may not lead to the correct solution in any given circumstance. In simple terms, theory is what generates the practical application you apply to your job. It is theory that helps us analyze our opponent and make determinations on what they are going to do in the future, and it is theory that has been turned into technology that helps us increase quality of life, performance, and competitiveness. Understanding what experts recommend is one very important strategy for you to use. The commitment to apply key theory to your ideas enhances the likelihood that sound judgment drives solutions, not just feelings and beliefs. The application of theory can also help protect you in cases of liability questions.

All written submissions should be submitted in a font and page set-up that is compatible with APA Style (7th Ed.) formatting. It is recommended that students adhere to this consistent format and follow all rules of APA formatting –here are some basics:

- Typewritten in double-spaced format with a readable style (Arial or Times New Roman fonts are best) and submitted inside the electronic classroom as instructed by the assignment details (unless classroom access is not possible and other arrangements have been approved by the professor).
- Best font sizes: Arial or Times New Roman 12-point font.
- 1” margins all around (no additional indenting –except 1st line of each paragraph)
- Double-spaced throughout paper
- Appropriate APA-style formatted in-text citations and reference list
- Paper should be written in 3rd person –this means no personal opinions, no sentences with “I” “my” or other 1st person text. These are academic/scientific papers.

Citation and Reference Style

Attention Please: Students will follow the APA (7th Ed.) Format as the sole citation and reference style used in written work submitted as part of coursework to the University. Assignments completed in a narrative essay or composition format must follow the citation style cited in the APA Format.

Late Assignment Policy

All dates and times posted are for U.S. Eastern Standard time. It is your responsibility to know how that translates to your time zone and to submit/complete Assignments, Discussions and tests per these posted deadlines. All assignment due dates are posted on the Assignments page.

Students are expected to submit assignments by the due dates listed in the classroom. Late assignments, including but not limited to Assignments, Discussions, posts and responses, quizzes, and exams, may or may not be accepted after the course end date. Submitting an assignment after the due date may result in a penalty of up to 10% of the grade per day late, not to exceed a maximum 50% of the grade. The amount of the penalty is at the faculty member’s discretion. Faculty recognize that students have limited time and may be more flexible if potential delays are communicated ahead of time. The University Late Policy can be found in the [Student Handbook here](#).

*Doctoral and Programs with specialty accreditation may have different late policies.

**Students with DSA accommodations may have different late policies applied. For more information regarding our DSA services, please contact DSA@apus.edu.

Netiquette

Online universities promote the advancement of knowledge through positive and constructive debate – both inside and outside the classroom. Forums on the Internet, however, can occasionally degenerate into needless insults and “flaming.” Such activity and the loss of good manners are not acceptable in a university setting – basic academic rules of good behavior and proper “Netiquette” must persist. Remember that you are in a place for the rewards and excitement of learning which does not include descent to personal attacks

or student attempts to stifle the Forum of others.

Humor Note:

Despite the best of intentions, jokes and especially satire can easily get lost or taken seriously. If you feel the need for humor, you may wish to add “emoticons” to help alert your readers: ;-), :))

Disclaimer Statement

Course content may vary from the outline to meet the needs of this particular group.

Communications

Student Communication

To reach the instructor, please communicate through the MyClassroom email function accessible from the Classlist of the Course Tools menu, where the instructor and students email addresses are listed, or via the Office 365 tool on the Course homepage.

- In emails to instructors, it's important to note the specific course in which you are enrolled. The name of the course is at the top center of all pages.
- Students and instructors communicate in Discussion posts and other learning activities.
- All interactions should follow APUS guidelines, as noted in the [Student Handbook](#), and maintain a professional, courteous tone.
- Students should review writing for spelling and grammar.
- [Tips on Using the Office 365 Email Tool](#)

Instructor Communication

The instructor will post announcements on communications preferences involving email and Instant Messaging and any changes in the class schedule or activities.

- Instructors will periodically post information on the expectations of students and will provide feedback on assignments, Discussion posts, quizzes, and exams.
 - Instructors will generally acknowledge student communications within 24 hours and respond within 48 hours, except in unusual circumstances (e.g., illness).
 - The APUS standard for grading of all assessments (assignments, Discussions, quizzes, exams) is five days or fewer from the due date.
 - Final course grades are submitted by faculty no later than seven days after the end date of the course or the end of the extension period.
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University Policies

Consult the [Student Handbook](#) for processes and policies at APUS. Notable policies:

- [Drop/Withdrawal Policy](#)
- [Extension Requests](#)
- [Academic Probation](#)
- [Appeals](#)
- [Academic Dishonesty / Plagiarism](#)
- [Disability Accommodations](#)

- [Student Deadlines](#)
- [Video Conference Policy](#)

Mission

The [mission of American Public University System](#) is to provide high quality higher education with emphasis on educating the nation's military and public service communities by offering respected, relevant, accessible, affordable, and student-focused online programs that prepare students for service and leadership in a diverse, global society.

Minimum Technology Requirements

- Please consult the catalog for the minimum hardware and software required for [undergraduate](#) and [graduate](#) courses.
- Although students are encouraged to use the [Pulse mobile app](#) with any course, please note that not all course work can be completed via a mobile device.

Disclaimers

- Please note that course content – and, thus, the syllabus – may change between when a student registers for a course and when the course starts.
- Course content may vary from the syllabus' schedule to meet the needs of a particular group.